

CHAPTER 1

INTRODUCTION

1.0 INTRODUCTION

In this chapter, we state background of study, problem statement, objective of research, scope of project, organizing of thesis, definition of term, significant of study and expected result.

1.1 BACKGROUND OF STUDY

Monitoring device is the tool or equipment to monitor the place while inventory management system is a process for managing and locating objects or materials. Monitoring device is usually like security purpose for company or private equipment like the laptop and PC at office, vehicle at parking area and others. In Malaysia, Monitoring device are not complimentary at all places and area rather than Europe and Asian. Otherwise, monitoring device is the best solution to keep the place more secure and systematic. Inventory management system has been recognized as one of the most important functions of industrial and commercial enterprises, which often has a great impact on their overall performance. Monitoring device usually like CCTV camera, smart tag and fingerprint identification at room or laboratory. Anybody can't enter the room or laboratory without any permission and all behavioral of human can be monitor by CCTV camera and smart tag identification. The barcode system also one of device monitoring and normally used in supermarket or all outlet store.

In University Malaysia Pahang (UMP), especially at electronic laboratory in Manufacturing Engineering Faculty doesn't have monitoring device to control in and out data of electronic component. The student are easily grab the component over than they need and sometime it not necessary use. Impact of this, the electronics component is empty and laboratory staff need to reorder again thus the previous order already enough to Manufacturing student purpose. The student was doing the final project also having the problem not enough components to complete their project. The problem can cause Manufacturing Engineering Faculty to invest a lot of money to buy electronics component again. To avoid this problem happen again, we need put the device security system like the barcode system for monitoring the electronic component in and out data from electronic component store. This probably can give inventory management system of electronic component in FKP more systematic and reliable.

1.2 PROBLEM STATEMENT

The Faculty of Manufacturing (FKP) Laboratory currently have a problem to control and diserve the quantity of electronic component was taken by student. Therefore laboratory staff also difficult to manage the electronic component available or not in store. The aim of this project is to make the FKP laboratory have the systematic inventory management system and save the money and time constraint.

1.3 RESEARCH OBJECTIVE

1. To design the device for monitoring electronics component in laboratory
2. To design the device can satisfied and fulfill the staff and student requirement.
3. To developed the systematic way in electronic component laboratory

1.4 SCOPE OF PROJECT

The project is developed to Faculty of Manufacturing (FKP) electronics laboratory and used by staff and student of University Malaysia Pahang (UMP). The project is usually use indicator light at the rack and give the signal to student receive the electronic component and barcode system to scan the product code of the electronics component as well.

1.5 ORGANIZATION OF THESIS

This project consists of three chapters. Chapter 1 describe an introduction. While Chapter 2 highlights of the literature review on article and journal and Chapter 3 explained the methodology for the project. Chapter 4 were show about result and discussion and chapter 5 were state the conclusion and recommendations.

1.6 DEFINITION OF TERM

Inventory Management System is process of develop and manage the inventory such as material or object in systematic arrangement. The inventory management system commonly use in supermarket, warehouse and others. Monitoring device is one of the device were give the signals and display to monitor or screen such as barcode scanner, CCTV or radio-frequency identification (RFID). Monitoring device also used for security purpose like monitoring the customer in and out from shop or outlet. That means the tool or equipment to record the inventory transaction in and out from the place also called monitoring device.